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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/653,797 | 09/03/2003 | Joseph D. Drescher | 67,097-008/EH10829 | 4539 |

26096 7590 12/17/2004

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EXAMINER

HEWITT, JAMES M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3679

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/653,797

Applicant(s)DRESCHER, JOSEPH D. **Examiner**

James M Hewitt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2003 and 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/3/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 4-8 are objected to because of the following informalities:

In claim 4 line 3, "structural" should be deleted.

In claim 4 line 5, "structural" should be deleted.

In claim 8 line 2, "one" should be inserted after "least".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Durina (US 5,188,399).

With respect to claim 1, Durina discloses a coupling comprising a first member (10) having an axial end with an outer circumferential surface having an outer first diameter, a first interlocking member (26) extending radially outward from the outer circumferential surface; a second member (12) having an axial end with an inner circumferential surface having an inner second diameter, a second interlocking member (32/33) extending radially inward from the inner circumferential surface; at least one of

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the first and second members including a keyway; the outer circumferential surface insertable into the inner circumferential surface such that the first interlocking member is inserted past the second interlocking member, the first member and second member then being rotatable relative to one another to a locked angular orientation in which the first interlocking member is interlocked with the second interlocking member to prevent relative axial movement of the first member relative and the second member (see Figure 5), a key (34) being insertable into the keyway when the first and second members are in the locked angular orientation to prevent rotation of the first member and second member relative to one another.

With respect to claim 2, wherein at least one of the first interlocking member and the second interlocking member is a portion of an L-shaped protrusion (32/33).

With respect to claim 4, wherein the first interlocking member is one of a plurality of first interlocking members positioned radially outward from the outer circumferential surface of the first member and wherein the second interlocking member is one of a plurality of second interlocking members positioned radially inward from the inner circumferential surface of the second structural member.

With respect to claim 5, wherein the at least one of the first and second members includes a plurality of the keyways into which a plurality of keys (34) are insertable to prevent relative rotation of the first member and second member.

With respect to claim 6, wherein the plurality of first interlocking members are circumferentially distributed along the outer circumferential surface and the plurality of

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second interlocking members are circumferentially distributed along the inner circumferential surface.

With respect to claim 7, wherein the plurality of first interlocking members are axially spaced from one another on the outer circumferential surface and the plurality of second interlocking members are axially spaced from one another on the inner circumferential surface.

With respect to claim 8, wherein the keyway is defined adjacent to and abuts at least one of the first interlocking member and the second interlocking member to prevent relative rotation of the first and second members.

With respect to claim 9, wherein the first member includes a body portion adjacent the axial end, the body portion having an outer diameter greater than the outer first diameter of the outer circumferential surface. Refer to Figure 4.

With respect to claim 10, wherein the outer diameter of the body portion of the first member is substantially equal to and substantially aligned with an outer circumferential surface of the axial end of the second member. Refer to Figure 6.

With respect to claim 11, wherein the axial end of the first member includes an axially outer annular surface and wherein the second member includes an annular shoulder surface axially inward of the second interlocking member, the outer annular surface of the first member abutting and forming a gas-tight seal against the annular shoulder surface of the second member when the first and second members are in the locked angular orientation.

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With respect to claim 14, Durina discloses a method for connecting a first member (10) to a second member (12) including the steps of: a) aligning radially outwardly extending first interlocking members (26) on an outer circumference of an axial end of a first member between radially inwardly extending second interlocking members (32/33) on an inner circumference of an axial end of a second member; b) inserting the axial end of the first member into the axial end of the second member; c) imparting relative rotation between the first member and second member until the first and second members are in a locked orientation in which the first interlocking members are interlocked with the second interlocking members (see Figure 5); and d) after said step c), inserting at least one key (34) adjacent a portion of each of the first and second members to selectively prevent relative rotation between the first and second members.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durina (US 5,188,399).

Regarding claims 3 and 12, Durina fails to teach that the second interlocking members are L-shaped. However, given that Applicant discloses that the first and second interlocking members need not be L-shaped (refer to Figures 12-13), and it

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appears that Durina's interlocking members work equally as well, it would have been an obvious matter of design choice to employ L-shaped first and second interlocking members. For instance, one could modify Durina's members (26) to include vertical legs (of the 'L') extending in the longitudinal direction of the barrel (10) to cooperate with members (32). It should be understood that in doing so, other modifications to the assembly would be required but readily evident.

Regarding claim 13, Durina fails to teach that the interlocking members are dovetail members. Nevertheless, it would have been an obvious matter of design choice to employ dovetail members in place of Durina's members, since Applicant has disclosed that the interlocking members can take a number of configurations, and it is apparent that the configuration of Durina's members performs equally as well.

Conclusion

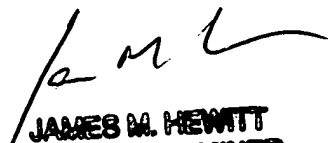
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 703-308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JAMES M. HEWITT
PRIMARY EXAMINER